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AMERICAN JOURNAL OF PHOTOGRAPHY

AN ILLUSTRATED MONTHLY
DEVOTED TO PHOTOGRAPHY
IN ITS WIDEST SENSE

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VOL. XX MARCH, 1900 No. 231

MARINE PHOTOGRAPHY

NEWTON W. EMMENS

FEW subjects furnish greater opportunities for securing *pictures* than the sea and sky. Yet how seldom do amateurs generally take advantage of them.

There are not many more pleasing effects to be obtained than when the sun is low on the horizon, just making his appearance from behind a bank of clouds, sending shafts of brilliant light through the rifts and transforming their edges into fringes of silver white below, the water reflecting all the beauties of the sky with, perhaps, a ship anchored or sailing along in the mid distance serves to complete the picture. Unfortunately photography is as powerless to do *full* justice to such a scene as it is unable to reproduce all the magnificant coloring; but it does faithfully record the lights and shades which in themselves are "things of beauty and a joy forever."

Then again, when the sun is making his way through a heavy mass of clouds after a storm the effect of light and shade combined with the appearance of the water make a fine study. Or, in winter, when the sun is low down and sends long slanting rays of light across the water while overhead the edges of the clouds are bathed in light, with perhaps a boat right in the path of the sunshine, we have a combination that makes a charming picture.

The foregoing remarks refer more particularly to pictures which are frequently seen on the comparatively still waters of the great harbors and smaller lakes of our country, and do not apply so much to the marine scenery along the coast where it is seldom possible to find a vessel in such a position as to make a useful adjunct to the picture, and recourse must therefore be had to the rocks and cliffs to supply the "motif."

But the sea affords many an opportunity for *grand* pictures. On the one hand we may have the peaceful sea smiling under a sunny summer sky when scarcely a ripple disturbs its surface and masses of cumulus cloud float lazily overhead, their constantly changing forms and the play of light affording many a fine study. On the other hand we gaze at times upon the sea lashed into fury by the gale, smiting in all its majesty the iron-bound coast, hurling tons of water and spray high up into the air, detaching great blocks of stone and dashing to pieces the piers and breakwaters erected by the hand of man, the heavens meanwhile being obscured by vast storm clouds that are ever and anon rent asunder by the blast and allow fitful gleams of sunshine to make their way through the rents and brilliantly illuminate the crests of the billows. Here are the materials for a magnificent study the capture of which amply repays us for many a patient hour spent in waiting for the propitious moment.

My own experience has been mainly confined to inland waters, the bulk of my exposures having been made on New York Bay either from the deck of a ferryboat or from the Battery sea-wall. But even when thus limited many a fine effect is attainable by careful watching and by being always ready to make an exposure when the opportunity serves.

Two things are really necessary to do justice to marine pictures. First and foremost, the plate used should be either of

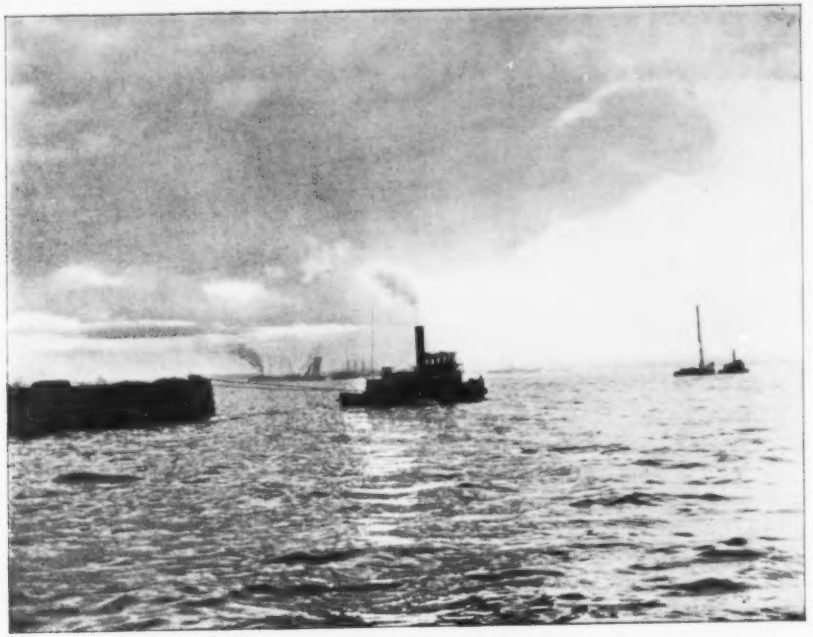
Across the Waters NEWTON W. EMMENS

the non-halation variety or should have some good non-halation backing; as otherwise, it will be impossible to catch the fine detail of the clouds which would be buried under the mass of "veiling" caused by the light being reflected from the glass surface under the sensitive coating. Secondly, the plates should be orthochromatic and thus the difficulty may be surmounted of securing white clouds against a blue sky; the ordinary plate being about equally sensitive to light blue and white. Inasmuch, however, as there is (to my knowledge) no *rapid* non-halation orthochromatic plate in the market, I make a practice of using "Cramer Isochromatic Instantaneous Plates," and back them with "Bostwick's Anti-Halo;" and it was on these plates, so prepared, that the illustrative photographs for this article were taken.

It must be borne in mind that the exposure required for marine subjects, when composed chiefly of sky and water with comparatively distant shipping, is some five to eight times less than that required for a landscape under the same actinic strength of light.

An exposure meter will be found of very great assistance in estimating the correct time to allow especially for sunset pictures when to the eye, there seems to be plenty of light while, in reality, the nearness of the sun to the horizon and the consequently greater amount of atmosphere to be traversed by his rays cause a deficiency of actinism. The instrument I have found to be the most convenient and compact is the Wynne Exposure Meter; and I rely implicitly on this instrument for the determination of my exposures.

In order to secure pictures of a thoroughly satisfactory character a considerable amount of judgment must be exercised in choosing the right moment for releasing the shutter, and the decision should be prompt, as clouds change their forms very rapidly, especially when there is a strong wind blowing. In illustration of this I invite the reader's attention to "Across the Waters," which is from a photograph taken on January 16th, of this year at 2.15 P. M., from the Battery Park, New York, using stop F–22, giving an exposure of 1–5 seconds, and the light registering 16 seconds on my Wynne Meter; the particular point of technical interest being that I waited until the sun while showing through a rift, was yet partly veiled



Evening

NEWTON W. EMMENS

NEWTON W. EMMENS

Ice on New York Bay

NEWTON W. EMMENS

by a thin cloud. Five minutes later the sun was entirely free from the clouds and the sky remained clear for the balance of the day, while five minutes previously it had been completely obscured.

The picture "Evening," was taken from a Staten Island Ferryboat a few minutes before starting. In this case I waited till the steam from the tug obscured the sun. Had I not done so I am afraid that in spite of the backing, there would have been considerable halation owing to the sun shining directly into the lens; and the date being September 20th, a period of the year when the sun is actinically quite strong.

The photographs "Ice on New York Bay," were taken to show the large quantity of ice that covered the water and formed a serious impediment to navigation during the greater part of February, 1899. They have no special claim to any pictorial pretentions, and were taken from the Battery sea-wall with a shutter speed of 1-10 sec. stop F-16 and a light value of 24 sec.

I do not mean to say that these illustrations are pictorially perfect but they will serve to show some of the possibilities of securing pleasing pictures of marine subjects even on land-locked waters.

Winter NEWTON W. EMMENS

HARVARD CAMERA CLUB CONTEST

W. B. SWIFT, PRESIDENT

AT the exhibit the judges, Professor Charles Eliot Norton, Mr. F. Holland Day, and Mr. J. Prince Loud, have awarded honorable mentions at their own discretion to the following men for single pictures (in no case to a whole exhibit). All the mentions are of equal value; there being no higher or highest, first or second; the rank residing rather naturally in the number received.

The alphabetical order of the prize men with the number of honorable mentions awarded.

H. L. Blackwell,	1.
Julian Burroughs,	3.
W. P. Cohoe,	1.
Alfred M. Dame,	1.
H. W. Eliot,	1.
Chester F. Stiles,	2.
F. C. de Sumicrast,	1.
Walter B. Swift,	4.
John Hillyer White,	1.
L. W. Wright,	1.

Besides making the above awards, the judges selected on the basis of general artistic merit, six men to represent Harvard in the Harvard-Yale camera contest. These were W. B. Swift, Chester F. Stiles, L. W. Wright, H. W. Eliot, John H. White and Julian Burroughs.

The judges also selected the four pictures to publish in the exhibition catalogue. They were: "After the Storm," by W. B. Swift; "Sunset on North Wattuppa Pond," by Chester F. Stiles; portrait (No. 83 in catalogue), by L. W. Wright; and "Sunset, Gloucester Harbor," by H. W. Eliot. It will be regretted that Mr. Wright's "Portrait" although of high merit, is too faint in outline for a faithful reproduction.

Thus has come the event of the year in the Camera Club with all its joy and honor.

All but four men did the whole of their work, treatment, exposure, developing and printing. It is noticeable, however, that where the men did little work, yet showed artistic taste, the lack of work did not keep them from the honors. This indicates an artistic standard in judging.

This 1900 exhibit as a whole ranks higher in artistic worth than the one of last year. The majority of the pictures are of greater intrinsic value and the best are far better.

In several cases the exhibit shows decided advance in the mastery of the artistic side of photography beyond the standard attained by the same exhibitors last year. This shows a stricter attention to the choice of this point of view.

A criticism of an exhibition calls for a few words about each exhibit, and when I am uncomplimentary it is to bring out the lesson that is most needed to advance here at Harvard the art we love so well.

Of Mr. Blackwell's pictures a word has been said. He shows four different views of the Great Falls of the Yellowstone. He could have improved his exhibit by replacing many views of one subject by a variety of views of different. Those he has, however, are forceful and well chosen in the matter of point of view.

Of Mr. Burrough's ten pictures, three received honorable mention, pictures containing figures having a very appropriate light, and well chosen accessories. Mr. Burroughs is one of the youngest men in the club and one of its most ardent workers, and his exhibit shows the club talks have advanced in a marked way this year, his mastery of the art side of our subject.

Mr. C. P. Cohoe exhibited three. He is an example to the modest and humble in that, although quite reticent about exhibiting at all, he received a mention.

Mr. Dame exhibited ten, all of which he developed and printed. All his pictures except "Lake Sunapee" and "A Hospital Ward" lack distance, and his skies are inexpressive; while about the latter picture, which received honorable mention, are indications of the chance rather than the artistically studied result. (Perhaps he has not seen my article on "chances" in the January *Photo Era*.) Yet, we must remember it takes years to

Honorable Mention, H. C. C., 1900 **After the Storm** W. B. SWIFT

Honorable Mention H. C. C., 1900 **Sunset on North Wattupa Pond** CHESTER F. STILES

learn to make beautiful pictures, and Mr. Dame has only begun.

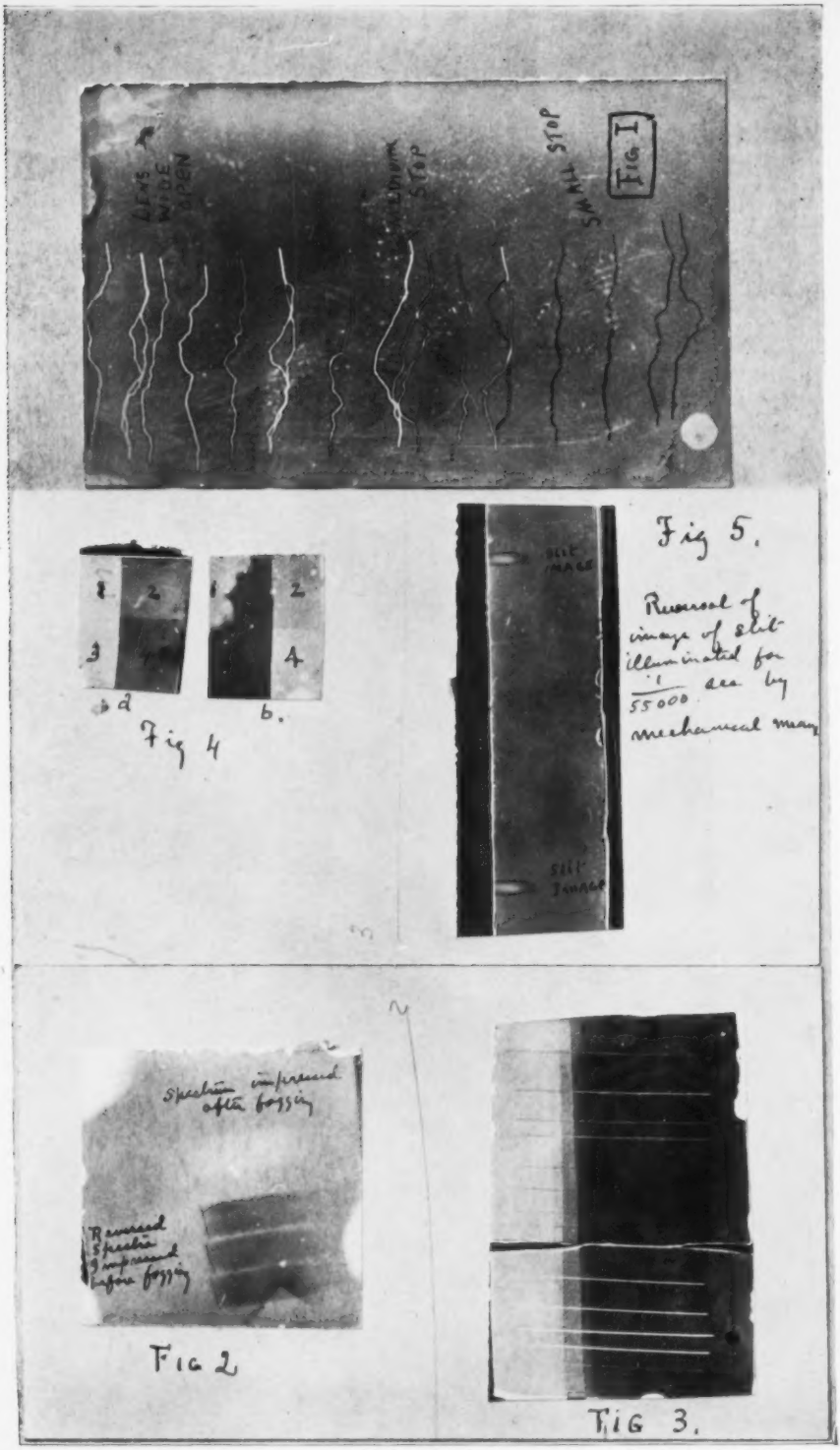
Mr. Eliot's "Sunset in Gloucester Harbor" is a gem. The delicate gradation from the upper margin down through the sky to the horizon, and the graded water that leads up to the spot where the sun is setting give the distance and pleasing quality wherein lie the value of this landscape.

Mr. Lane's "Feast of the Holy Infancy" is an admirable illustration of a large group with no one gazing obtrusively into the camera.

Mr. Stiles entered four pictures, two of which received honorable mention. He shows exceptional knowledge of the scientific side of photography. We do not feel that his exhibit does him justice as he has many other much better pictures.

We are always interested in what Professor Sumicrast is going to show. His "Slow Sinks the Sun" was honored by the judges. "In the Garden" interests me especially, since it illustrates the law of emphasizing the principle object (in this case the figure) by giving it the only sharpness that the picture has. That his exhibit is not up to his usual standard of excellence may, perhaps, be due to the fact that the entries were hastened just at the close.

Of my own exhibit a few facts may be of interest. "After the Storm" and "An Azarean Village" were studied and posed in the Azaorean Islands. The first, the remains of a wreck in the harbor of Fayal, the other a view in St. Michaels. "The Dell," "One Side of Golf," "Wasting the Hours Away" and "The Back Door Step" are views taken in England. Of these "Wasting the Hours Away" is most dear to me because of the trials to get it. I had hired these three ragged children as my models, to tramp away from home to this pretty spot by a secluded pond, chosen as an admirable place to photo some days before. Here, thought I, no one will molest, no one pass by just as I expose, and surely no one object. As we tramped across the lot leading to the water, we were hailed by a kind of commanding general's voice to stop, and an assuming English coachman, ruffled as a setting hen, ran down the path, and said it was a "gentleman's place" and we had no business there at all. I told him I had seen no sign and so we had all jumped the fence and were going to take



Professor R. W. Wood's Experiments to determine the cause of Dark Lightning, and the Clayden Effect. See page 120.

From the *Journal of The Photographic Society of Philadelphia.*

pictures. I soon found that would not do, since things were not so free here as in America, and I must get permission. The "gentleman" was away and the lady refused permission to enter unless their partner next door gave his. He gave it. Then I recalled that a boat on the pond had a canvas that spoilt my composition and I asked if it could be removed but found that that belonged to the lady. She refused to uncover the boat and we returned to do what we could. I hired the boatman in the picture to come over from the other side and vary the blackness of the shore with his white shirt, and then, with a few words to the children, all was done. This may show that the often empty term "treatment" put down as work done, may have often more back of it than we think.

It has been hoped all along that someone would illustrate in his exhibit the principles Mr. Ross explained to the club, balance and rhythm; and this Mr. White has done. His whole exhibit obeys most beautifully this law of balance or centralization of light.

Mr. Wright exhibited nine. Three of his portraits are exceptionally charming. Here he has secured an easy pose, graceful lines, and appropriate light. In that soft, half out of focus effect, seems to be his habitual way of working. His landscapes, on the contrary, though interesting, are weak and meaningless.

The Camera Club has grown in numbers, enthusiasm and activity this year. The members are even now slowly growing and I notice this is especially so as we approach the inter-collegiate contest. The enthusiasm is in the artistic discussions and the desire to attain to the rare accomplishment of making artistic pictures, which is one of the highest aims of the club. The activity lies in its many lectures and meetings; the two exhibits that have already been held, and in the plans for the coming third one.

The purpose of our exhibit is to gather the beautiful pictures of the students together annually, and show them to the public, to stimulate competition among members, and to illustrate, as a stimulus to others, the results that come from those members who have already attained the accomplishment of making beautiful pictures.

ON THE CAUSE OF DARK LIGHTNING AND THE CLAYDEN EFFECT

Abstract of a Communication to the Photographic Society of Philadelphia, by R. W. Wood, University of Wisconsin, read at the Stated Meeting, November 8, 1899.

MR. CLAYDEN has shown that if a plate which had received an impression of a lightning flash or electric spark was subsequently slightly fogged, either by exposing it to diffused light or by leaving the lens of the camera open, the flash on development came out darker than the background. If, however, the plate was fogged before the image of the flash was impressed, it came out brighter than the background, as in the ordinary pictures of lightning. I refer to the appearance in the positive print in each case. This is quite different from ordinary reversal due to the action of a very intense light, for the order in which the lights are applied is a factor. I repeated Mr. Clayden's experiment and obtained dark flashes without any difficulty.

The effect cannot, however, be obtained by impressing an image of the filament of an incandescent lamp on a plate, and subsequently fogging the plate. Clearly there is something about the light of the electric spark which is essential to the production of the reversal. It is not intensity, however, for I found that it was impossible to obtain reversed images of bright sparks with the lens wide open.

Figure 1 shows a series of spark images, some normal, some partly reversed and others wholly reversed. The sparks are those of a large inductorium, with a good sized Leyden jar in circuit. The sparks were all of equal intensity, but after each discharge the iris diaphragm of the lens was closed a little. It will be seen that the borders of the bright sparks are reversed, In some the image is reversed, with the exception of a narrow thread down the core. After exposure the plate was exposed to the light of a candle for a second or two and then developed.

In this series of pictures it will be seen that the edges of the bright images of the sparks are reversed, the intensity on the border of the image being less than at the core. As the intensity of the spark becomes less and less, the bright central core dwindles down to a mere thread and eventually disappears, the spark's image being feeble enough to reverse over its entire area.

This explains why the dark lightning flashes are usually ramifications of the main flash. The ramifications are less brilliant discharges and reverse, while the main one is too bright to cause the effect. The first thing that occurs to one is that it may be some peculiar radiation which the spark emits, which is wanting in the light coming from other bodies. If a small photographic plate is partly screened by a piece of black paper and illuminated by the light of a small spark at a distance of two or three feet, and a similar plate screened in the same manner is illuminated for a moment by candle light of sufficient intensity to produce the same amount of blackening on development, we shall have the means of showing that the spark light differs in its action on the plate from that of the candle. If these two plates, before development, be half screened in a direction at right angles to the former one, and exposed to the light of the candle for a second or two, the part of the plate which has been illuminated by spark light, plus candle light, does not become as black on developing as the part which has only received candle light, whereas the part which has been twice exposed to candle light is blacker than that which has been exposed only once. This shows that the light of the spark does not act in the same way as the light af the candle. Wherein does it differ? Possibly in the nature of its radiation. To test this a prism was placed before the lens of the camera, which broke up the image of the spark into a series of spark images of different color. The plate was exposed to the flashed spectrum of a single spark, then removed from the camera and exposed to the candle light and developed. If the reversing effect was due to any peculiar radiatian or wave length, we should find the reversal at that part of the spectrum where the effective radiation belonged, say in the infra red, if the reversing power lay in long waves given out by the spark. It was found that the entire spectrum came out lighter on the negative

than the fogged background. A second plate was tried, flashed with the spectrum, then exposed to the light, and then a second spectrum flashed upon it. On developing, one spectrum came out light and the other dark, as shown in Figure 2. Clearly the effect does not depend on wave length. It then occurred to me that the time element might enter into the problem. The light of the spark is over in about 1-50,000 of a second, and it did not seem impossible that a bright light of exceedingly short duration might act quite differently on a plate from a weaker light of longer duration. This may be tested in a variety of ways. We may open the lens wide, impress the image of a single spark on the plate, and then stop the lens down and superimpose a number of spark images sufficient to make the total exposure the same in each case. This was the first method which I tried. In order to compel the successive sparks to pass over the same path, that their images might be superposed, I shut them up in a capillary tube. With the lens open wide enough to give the maximum reversing action, I passed a single discharge through the capillary. Stopping the lens down to one-quarter of its former aperture, four discharges were passed through the tube. The plate was then fogged in the usual manner, and on development the single discharge was reversed, but the composite one was not.

Figure 3 is from a plate showing this effect. The upper images are those of single discharges through the capillary with different aperatures on the lens; the lower images are those of double or triple discharges through the same tube. The left-hand side of the plate was exposed to the candle light for different amounts of time by moving the screen over small distances during the exposure. Only the single discharges reverse, through the density of the images on the unfogged portion of the plate is the same. This was very strong evidence that the duration of the illumination was the important factor.

The difference between the action of spark light and the light of the oxy-hydrogen flash is shown in Figure 4. Plate "a" shows the effect of the explosion flash. Squares 1 and 2 receive the light from an exploding bulb, the rest of the plate being covered. Squares 1 and 3 were then exposed to the light of the candle. Square 1, which has received the light from

both sources, is the brightest; that is, the effects are additive, there being no reversal. Plate "b" shows the action of the light from the spark. Squares 1 and 2 were illuminated by the spark light, then squares 2 and 4 were exposed to the candle. In this case square 4, which was illuminated by the candle, is brighter than square 2, which received both the spark light and candle light. In this case the effects are not additive, there being reversal.

The crucial experiment now remained. A plate was dropped and before development was exposed to the light of the candle. *The images of the slit were most beautifully reversed*, except at the center, where the light was too intense. A print from this plate is reproduced in Figure 5. It seems then that we are justified in assuming *that the action of an intense light on a plate for a very brief time interval decreases the sensitiveness of the plate to light.* It is curious to contrast this effect, the fact that exposure to a dim light for a moment or two appears to increase the sensibility by doing the small amount of preliminary work on the molecules, which seems to be necessary before any change can be effected that will respond to the developer. I am not prepared to say what the nature of the change effected by the flash is. Possibly someone familiar with the theory of sensitive emulsions can answer the question. I have tried using polarized light for the reversing flash, and then fogging one-half of the plate with light polarized in the same plane and other half with light polarized at right angles to it. As was to be expected, there was no difference in the effects.—*Journal Photographic Society of Philadelphia.*

SIDE LIGHT IN PORTRAITURE

THE experience of the best photographers and we might add painters too tends to emphasize the value of a somewhat high side light at a variable position in advance of the sitter. Certainly it is the easiest to manage and the student in portraiture will do better to avail himself of the beautiful and varied effects it is capable of supplying, than in the seeking of novelties and bizarre effects in illumination which put the head in all sorts of unnatural lights and frequently destroy all likeness. The head ought to receive the light on that side which will afford the greatest breadth.

On what is technically called a three-quarter view of the head, the brightest light will be on the forehead, cheekbone and nose, from whence it should graduate to the retiring side and the chin, the brow will receive light in proportion to its prominence, and under it will be perceived a shadow strongest between the eye and the nose. The light will again glance upon the cheek bone; graduating up to the hollow under the eye and down to form the oval of the cheek.

A light will run down the line of the nose, glance upon the point of the upper lip and the fullness of the under lip, and faintly touch the prominent part of the chin.

The retiring side of the head graduates into shadow, slightly relieved by half lights upon the eye, the brightness of which will depend, as in the other, upon the prominence of the eye, or the heaviness of the lip, but must be equal to the light upon the nearest eye. If a head be seen in front, the assimilation to a globe should be preserved; the principal light being on one side of the forehead, cheek and nose, and graduating from thence diagonally to the other cheek and chin. The treatment of the various parts will be nearly the same as the view just described, the difference being principally in the outlines of the several forms.

We might here say a word about that variety of portraiture in which the face is taken on the shadow side, sometimes called

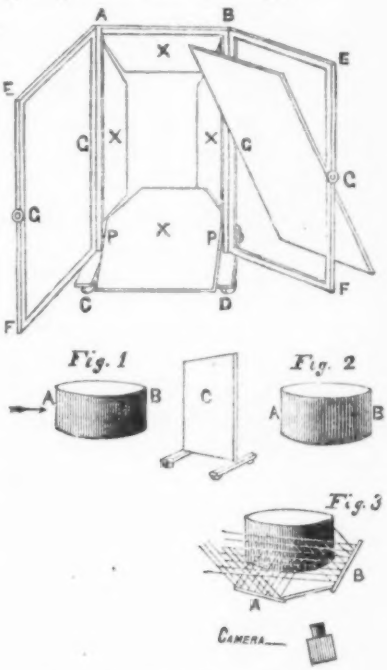
or miscalled Rembrandt. It is quite possible to produce true Rembrandt lighting in a photograph so that it might even pass for a copy from one of his paintings, but it would hardly be acceptable to any one but a Salonist.

This side shadowing in the majority of cases is simply hideous, but it does not follow that very effective and pleasing results may be obtained therewith. It is especially suited to the delineation of white drapery, subduing it and giving greater emphasis to the head and merging the dark draperies into the shadows giving them considerable transparency.

Of course this is only attainable with study, care, judgement and taste.

The face is placed entirely in the shadow, the light coming from behind somewhat high, floods the hair and falls over the shoulders.

It is necessary to carefully manipulate the reflectors when lighting up the shadow-side so as not to destroy texture. The best effect is secured when the face is turned away from instead of towards the light.



KURTZ'S "REMBRANT COUNTER REFLECTOR."

The best method of illumination for the shadow is that recommended by Mr. Kurtz, published some years ago in the *Philadelphia Photographer*.

In making "Rembrandt" pictures the usual routine of operations is abandoned and reversed. Instead of at the side of the subject nearest the camera, the main light comes from *behind* the sitter, as it were, or falls upon the side of the subject *from* the camera, the side toward the camera being in shadow. To get detail in this shadowed side it is necessary to reflect *some* light upon it, and to avoid a multiplicity of screens,

reflectors, etc., Mr. Kurtz has contrived the apparatus described.

A B C D represents a light frame of wood, about six feet high and three and a half feet wide. E F E F are two doors or wings turning on pivots at the points A and B, and also on two other pivots at G G G G, consequently giving a universal movement, X X X X are four inner wings moving on hinges on the frame, whereby you may enlarge or decrease the size of the opening, the lower wing moving on two pivots at P. P.

All this is lined on the back with strong paper and black muslin, and on the front with pure white paper.

Its application may be better understood by the accompanying drawings.

Let A B, Fig. 1, represent a block of wood, and the light shining on it in the direction of the arrow—any attempt to photograph this in its present state of illumination would be impossible. The dark shadow at B would be devoid of all details, and the high light at A would be too intense. Upon bringing up the reflector at C, the effect is to drive, as it were, the shadow back again towards A, producing an unnatural lighting, as shown in Fig. 2, causing a squinty appearance in the sitter, caused by being *raked between two fires*. Now the counter-reflector has the effect of doing away with this completely. See Fig. 3. It throws the light in the direction of the lines, and we have the *natural* effect of No. 1, only greatly subdued with perfectly transparent shadows, offering no strong nor harsh contrasts against the high light; A, as it were *counter-reflecting* the reflection of B, thus preventing that shadow which otherwise would have hung over the centre.

This arrangement also serves a good purpose when making pictures in the usual way, and is specially useful where there is no side-light, in scattering the shadows that are apt to occur in such cases under the eyes, nose, and chin, and in relieving the frowns of unwilling sitters.

INTENSIFYING WITH A SOLUTION OF COPPER FERRICYANIDE

OUR readers will no doubt have in mind the valuable paper by Prof. Namias on this and kindred subjects published a short time ago. Dr. Eder has recently been writing upon the same topic in a German contemporary, and we ourselves have been experimenting on the same lines.

Ferricyanide of copper, a dull mud-colored powder easily prepared by mixing solutions of copper sulphate and potassium ferricyanide, seems likely to be a useful salt to the photographer in many ways. It acts as an excellent intensifier, and can be used for getting warm tones on bromide prints. It is in the former capacity that we propose to deal with it at present, deferring our remarks upon its toning powers to another occasion. Dr. Eder describes his own work in this direction in a paper of which the following is an abstract:

Capt Toth and myself drew attention to the possibility of getting warm tones on silver prints by means of copper ferricyanide some time ago, and I have described a method of accomplishing a similar result by intensification with lead followed by treatment with a copper salt. After alluding to Prof. Namias's work, and referring to a formula given by himself (Dr. Eder) in the *Jahrbuch* for 1899, he thus describes the plan he recommends for making the solution of copper ferricyanide.

Five grammes of copper sulphate are dissolved in a litre of distilled water, and a saturated solution of ammonium carbonate added until the light precipitate of copper carbonate dissolves again in the excess of ammonium carbonate. A solution of twelve grammes of potassium ferricyanide in 700 cc. of water is next added, causing a heavy precipitate. The quantity of ammonium carbonate is thus seen to be insufficient to keep the copper ferricyanide in solution, and ammonium carbonate was

therefore added until the whole of the precipitate dissolved, and the liquid became a dark blue but clear solution. This is the solution of copper ferricyanide in ammonium carbonate employed both for toning and for intensifying with copper.

It was applied to plates for intensification by simply immersing in it the thoroughly fixed and washed gelatino-bromide negative. The action is slow but uniform, and perfectly under control. The color is at first dark brown, gradually becoming redder and redder until if allowed to proceed far enough a bright red tone results.

So far Dr. Eder. Our own experiments were at first but a repetition of his own. A simpler and more direct way of making the solution, though, seemed to be desirable, and therefore the following was adopted.

Saturated solutions of copper sulphate and of potassium ferricyanide were made by adding each salt to boiling water until no more was dissolved. When cold the ferricyanide was added to the copper sulphate solution, forming a thick mud-colored precipitate. No weighing is necessary; each solution is made saturated, and the ferricyanide is added so long as it continues to give a precipitate. More or less matters not at all, except that it is rather wasteful to have much free sulphate or ferricyanide left, although they are cheap enough. When the mixture is complete the precipitate is allowed to settle, and the clear liquid either poured off or syphoned off. The precipitate is shaken up with water twice or thrice, and allowed to settle, and the water decanted each time, the last lot of water being poured off as closely as possible. In the meantime a saturated solution of ammonium carbonate has been prepared, and this is poured on to the precipitated copper ferricyanide, and the whole well shaken up. Here, again, no weighing is required. All that is of importance is that some of the ferricyanide shall remain undissolved, and this is either allowed to settle and the clear blue solution is decantered for use, or is separated by means of a filter. This clear solution is one of ammonium carbonate saturated with copper ferricyanide.

To use it for intensifying negatives the well-washed negative is simply placed in it and rocked from time to time. Gradually the color will be seen to alter. If the negative had originally

a black tone it will slowly change to a dull brown, getting warmer and warmer as intensification proceeds.

Not only does the color of the negative change, and that in a direction which needs attention or it will be made too hard, but the negative gets visibly denser. The action is beautifully regular, and in our hands with plates which had previously been dried, and of which the films were therefore to some extent repellent, it was complete in from twenty minutes to half an hour. That is an extreme case. Where a less degree of density is wanted or where the film instead of being repellent is soft and full of water just as it comes from the washer, the action is much quicker.

It may be worth while mentioning that in the densest portions, *i. e.*, the sky in the cases in question, a peculiar mottling made its appearance as soon as the plate had been immersed for a minute or so, like that obtained when the dish has not been sufficiently rocked during development. This seemed a drawback, but although it was noticeable in two or three cases before the intensifying action had really begun, no trace of it was visible in the negatives at the finish. The cause of it remains to be cleared up.

It should be mentioned in this connection that there is a distinct staining of the most transparent portions, which is a serious drawback to the process from the lengthening of the printing that it entails. Mr. Marriage, who has used the process for toning lantern slides, confirms us in this, and remarks that he has not so far been able to overcome it any more than ourselves.

On the permanence of negatives intensified in this manner we are unable to speak at present, but experiments on this point are in progress. There is no reason to suppose but that they will compare favorably with negatives intensified in one way or another with mercury, but, on the other hand, we do not know that they will. There is no superfluous amount of permanency to boast of in one or two at least of the forms of mercurial intensification. In any case there is nothing like an actual test, the only drawback to which is that it of necessity takes a considerable time to perform.—*Photography.*

IDEALISM IN PORTRAITURE.

THE following remarks though written more than thirty years ago by G. Wharton Simpson, of England, make most profitable reading for photographers of the present time.

Mr. Simpson in referring to an exhibition and a criticism of it by Mr. Tom Taylor says: "The critic recognized as an able and accomplished judge has felt it necessary, in face of the advance made by photography in the domain of pictorial art, to offer a vigorous protest against the use of photography for picture making.

He says he has before expressed his conviction that the true function of photography is "to record facts as they are, and not as arranged for pictorial effect." He adds: "If indeed, the theory of some of our painters were true,—that the painters work is simply to represent what he sees before him—then the photographer might claim to be put in the same rank as the painter and above him. * * * * * * * * But, if we hold the distinctive function of the painter, art be not transcription, but new creation, the condition of which is the subordination of the objects represented to certain mental states and acts of the artist, it is evident that photography is excluded for the sun will paint what it sees as exactly as he can."

I fancy from occasional opportunities of judging, that art critics, even in advanced America, are scarcely more just to photography.

I feel constrained to protest always vehemently against errors so repressive of art effort on the part of the photographer.

The paragraph I have selected from Mr. Tom Taylor's critique is brief enough but it is most comprehensive in its error, and because I fear that error is common in all communities, perhaps you will allow me briefly to repeat here my ground of protest against it. I need not dwell on the error of narrowness in supposing all art to be of a creative character, which excludes at once from the category all imitative art.

This scarcely needs discussion. Nor is it necessary to enlarge on the further error in regarding photography as the work of the sun in the sense indicated. They are the work of the photographer, and within limits, as distinctly bear the impress of the producers mind, and indicate his capacity and intention as truly as do the results of other plastic arts, indeed all praise or blame of the photographer for the art qualities of his work would be meaningless if they were beyond his control, and simply the work of the sun.

But the cardinal error is the assumption that it is not the function of the painter to paint what he sees, at least in all renderings of nature, whether in portraiture or landscape. This is, of course, an old subject of controversy, embracing much wider considerations than belong merely to photography. It involves the question as to whether art should represent truth, or merely the painters conception of truth, which, in any departure or modification, must we submit, fall short of, rather than transcend truth. I protest emphatically against the notion, in portraiture at any rate, that there should be any "subordination of objects represented," to the mental state of the artist. The notion of idealising portraits is an old one. That the artist should invest his sitters with a grace or a nobleness not their own was at one time regarded as a matter of course.

Dr. Johnson said that it was one of the highest proofs of the genius of Sir Joshua Reynolds, that he contrived to give nobleness to the head of Goldsmith in his portrait, whose genial soul and fine intellect were not habited in a very dignified or handsome body. If Reynolds gave to Goldsmith a nobility of countenance which nature had denied, but which the painter conceived was more characteristic of the inner man than the actual presentment, then we have in the portrait Reynolds conception of what Goldsmith ought to have looked like and not the actual portrait of the man. If he merely depicted him at his best, happily catching the expression which lit up the face when it was aglow with some unusually happy thought, then he did not give Goldsmith the noble look, but, with the true painter's skill readily detected the noblest effect and gave permanent form to a transcient expression. This is the prerogative of the painter, in many sittings, during many hours to effect.

It would be equally the prerogative of the skillful photographer, with a tithe of the time and opportunity, if either were afforded him ; for if the highest duty of the painter is to seize and perpetuate the best actual expression presented to him, photography can do that more rapidly and effectively than the most skilled hand can do. Photographs it may be admitted, then are rarely such noble portraits as the skilled painter can produce, simply because the photographer rarely has such opportunities in the few brief moments often given up to sitting for a photographic portrait, of seeing and securing the best phases of his sitters countenance as afforded to the painter.

THE HANDS IN PORTRAITURE

FRANK M SUTCLIFFE

IF a score of photographers were asked to state what was their *bête noire*, in all probability most of them would reply :—the sitters' hands. The more conscientious the photographer is, the more does he study this subject. If there is one thing more than another which stamps a photographic portrait as a machine made thing, it is the hands. It requires much skill and experience on the part of the photographer to dispose of his sitters' hands, just as it takes time for the photographer to secure a natural expression on their faces. The photographic portraitist of to-day has to fight against three principal obstacles:—the nervousness of the sitter; the conventional ideas of the sitter: and the shortcomings of his lenses. The nervousness of the sitter is too often caused by the want of tact on the part of the photographer, or want on the part of the photographers who have taken the sitters' portrait before. Children are seldom nervous. Good looking people are not so nervous as plain ones: perhaps they are more confident that the result will be satisfactory; though it is well known to photographers that plain people make the best

portraits, but to explain why would take us too far away from our subject.

It is the nervousness of the sitter which makes the hands so difficult to deal with. Note the unstudied graceful positions the hands fall into when there is no camera in the room, or when the photographer is not near his camera. Note how stiff and unnatural they become if the sitter thinks they are being noticed: to expose a plate while the sitter is thinking of her hands is foolish. Unfortunately the sitters' mind changes so quickly that, if the hands are forgotten one minute, and the photographer is about to expose, the chances are that the sitter suddenly wonders whether her dress is right, and the hands are moved to feel whether the shoulders are straight or the buttons fast at the back. Then the hands are thought of again, and the artful photographer has to beguile her into forgetting them again. If he has not time to do this the quickest way out of the difficulty is to put something into the hands, a book, a needle, or what not; a piece of embroidery or needle-work is invaluable to the photographer as with its aid he can find graceful employment for his fair sitters' hands.

Some people, who cannot be classed as nervous, place their hands naturally, until attention is drawn to them. It is therefore, wise not to speak of the hands to the sitter. One well-known dodge is to pretend to take a bust portrait while including the hands. Many people if they think the photographer is including the hands in a portrait, will exclaim, "you will not take my hands, they come out so big," suiting the action to the word, as they put them palm downwards on either knee. Every photographer of spirit will take no heed to this exclamation if he thinks the likeness will be improved by including the hands

This brings us to the second and third obstacles we have to contend with:—The conventional ideas the sitter has about hands, and the short-comings of lenses. People think their hands are big in a portrait because they have not learned to see properly. They imagine their hands in reality are much less than they are. Nine people out of ten will laugh at you if you tell them that their hands are as big as their face. That part of the press which pretends to tell the most beautiful of God's creations—woman—how to make herself yet more beau-

tiful encourages the mistaken idea which people hold with regard to their hands, and in the fashion plates hands, withered and shrunken to a degree, are drawn week after week. Women, who know no better, fondly imagine that they have such attenuated limbs, and express their disappointment when they find the camera is more truthful than the fashion plate. We English people pride ourselves on our honesty and uprightness, yet we are not really honest, or we should send all those editors and publishers who publish such lies about hands and feet week after week, to the place which is waiting for all liars. Now that photography has taught artists to see correctly they have no excuse that they do not know better.

Few people seem to have noticed the great difference there is in the shape and size of hands, and that the hands are quite as characteristic of the subject as the face is. The work people do, *or leave undone*, is expressed by their hands. Who has not felt a creepy sensation run down his back as he has looked at the fat flabby hands of the over-fed drone; or who has not admired the beautiful hands of the artist or musician? The painter's hand is without exception a beautiful hand, and is generally graceful in all its movements. The calling of the painter compels the fingers to be strong and yet delicate; the principal feature in the hand, the fore-finger, is developed in a fine way from incessant work while the most beautiful feature, the little finger, becomes well developed, too, from being constantly used as a support and rest for the other fingers. Now that people have got rid of the foolish idea which possessed them in the early Victorian age, that work was undignified, and should be left to *common* people, and by the greater amount of exercise now taken, the hands should be developing and increasing in beauty, strength, and size. Painters, too, are seeing the foolishness of idealising all hands. In the September number of *The Studio*, in an article by Arthur Bell, on the work of Cecilia Beaux, we read:—"Artists with few exceptions paint the hands of all their models in the same style." Vandyke, Reynolds, and Romney are quoted as erring in this respect, while the work of Cecilia Beaux is spoken of highly as showing most careful treatment, for, according to Mr. Bell, that artist paints the hand *as they are*, and not as she thinks they ought to be; the hands in one example of a lady, holding

a black cat on her shoulder, are highly spoken of because "no attempt has been made to tone down or idealize their somewhat clumsy character."

Unless the sitter gives the photographer or painter all the help she can with regard to the matter of dress, a successful picture cannot be depended on. All ladies and all photographers know that the hands look more conspicious on a dark dress than on a light one, and that they require more careful study in the former case. When the hands stand out by contrast from their darker surroundings, the lady who wishes her hands to come out large should put on a dark dress. However, it is not often that this wish is heard, for the use of short focus lenses has made the hands in very many portraits *appear* too large. If photographers would only use lenses of two or three times the focal length of the diagonal of the plate we should hear no more of the exaggeration of the camera and lens, and the reproach that the writer's father once made that "Photography at its best was but the reflection of a gutta-percha world world in a brass door-handle" would not be cast in its teeth. We all know how a brass door-handle exaggerates the end of our nose as we look into it; short focus lenses do the same in a lesser degree.

In the case of a three-quarter or full length portrait in dark drapery, we find the hands, the only other unclothed part of the body, stand out by contrast from the rest, and catch the eye often before the face. Painters and engravers have noticed this, and have kept the hands down by lowering their tone. The photographer can do this *if his sitters will let him*, but the photographer too often gets sat upon by his customers for attempting to make their portraits pictorial; that a photogram should be anything but a hard, bare, record of as many thousand little facts as possible, is not tolerated by many. Even men who should know better will complain that they had washed their hands and had not been playing with the coals, if the photographer, in his excess of artistic zeal, has attempted to lower the tone of the too white hands.

In a photographic portrait we are seldom called on to express anything but repose. The fingers are therefore kept near together and are not separated as when animation or fear, or greed separates them, but a sensitive person will, while speak-

ing, gesticulate with the fingers more than a less sensitive one; the sensitive person will appear to speak with every finger, especially with the forefinger, the little finger, and the thumb, and it will be noticed that the forefinger and the little one will often be in advance of the middle and third fingers. Advantage may be taken of this by the photographer; for when these two fingers are in advance, they partly hide the rest, and so make the hand appear more expressive.

As some people seem to be unable to move their necks, but move their whole bodies, when they need only move their heads, so some people seem to have no use of their wrists. A beautiful hand is always joined to a flexible wrist; sometimes if the hand appears stiff a request to the sitter to bend the wrist a little will make it all right.

A position for the hands, or at any rate for one of them, which is eminently useful, is when the hand is made to support the head; if care is taken to show the edge or inside of the hand almost any hand looks well. The hand can be used to support the forehead, when the head is bent down; or the chin, when the head is higher.

Some people have beautiful thumbs which give a beautiful curve from the end of the nail to the wrist. By separating the fingers a more graceful effect is formed than would have been the case had a fist been made of the fingers.

Sometimes part of the hand can be hidden in the folds of the dress, and any extra width reduced.

Examples might be multiplied indefinitely, but enough has been given to show that observation on the part of the photographer is the only thing required to pass into oblivion the objection:—"hands come out so large always."—*The Photogram.*

THE MILWAUKEE EXHIBIT

IT would seem especially fitting, that the Photographers' Association, the official spokesman of the profession, should uphold the dignity of photography. That portrait photography is rapidly advancing, is well known. Its artistic capabilities have never been so well understood and acknowledged as they are at the present time. It has been a matter of regret to many, that the average of the work exhibited yearly, at our conventions, is not of as high a standard as we should expect to see, when we consider the high average skill of the American photographer. It may or it may not be due to the policy of scattering medals broadcast; of permitting one standard of excellence in one locality and another standard in another locality. If a National Association means anything, it means a common meeting-ground, where all must compete on an even footing, a manifest impossibility when geographically divided. The most important issue, however, is, shall the Association stand for all that is best and most elevating. It can have no lasting influence otherwise. Its yearly exhibitions should be and must be a representation of the progress of the year. It should be able to say to its members, "Here are the Ideals of Photography."

You must come to this fountain head if you want the true knowledge. To turn from generalities to something specific, let me say, that in providing for a hanging committee to pass upon exhibits, the Executive Board have added mightily to the dignity and prestige of the National Association. Who can gainsay the added interest of such an exhibit to the visitor, and the greater opportunities it offers for study? It is unfortunate that much of the talk and discussions in relation to the "new" and "old" schools, and the sneering allusions to "Freak Photography," have made it appear that many of our best workers are opposed to the artistic advancement of portraiture.

A most erroneous impression. Possibly some of the flings at "freaks" have been inconsiderate, certainly they have been

justified by some of the "attempts" of some of the would-be reformers. It is the fool friends (as usual) of the new movement who have made all the disturbance. Some very able lectures or talks have been arranged for, that will be prepared for the especial purpose of throwing light on that much abused question, "How to Apply Art Principles to Photography." Never has the Association had so commodious and convenient a building for its purpose, as the Exposition Building at Milwaukee. It contains a series of Art Galleries, with top light, in which the exhibits will be hung. Pictures will be judged by day-light; a fact that exhibitors will do well to bear in mind. It is the earnest desire of the Executive Board to have the National Association the exponent of all that is best in Photography. We appeal to all who are in sympathy with us, for your exhibits and your presence.—GEO. B. SPERRY, First Vice-President, P. A. of A.

BOOK NOTES

L'Eclair age a Incandescence: Georges Carriè et C. Nand, Paris, is not specially designed for photographers, but as it treats of various sources of illumination might be useful for suggestions about artificial lighting, and probably of interest to the magic lantern operator.

We call special attention to the Photo-Miniature Series, entitled, The Platinum Process, and would recommend it as a very thorough, trustworthy and practical manual for the worker in this beautiful method of printing, when properly done. It gives full instruction for manipulation, &c., which the amateur may follow with the assurance that the writer of the manual is conducting him by proper paths to success.

Die Chemischen Vorgänge in der Photographie (W. Knapp, Halle). This is a series of lectures by Dr. R. Luther, on the Chemistry of Photography, which, though written in a some-

NORWALK, Ohio, Feb. 23, 1900.

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Yours,

ALLEN M. HAYES.

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Photographisce Physik: Another German book by R. Ed. Liesegang, Düsseldorf. This book treats of the physics of photographic films, a province less entered than the chemistry. The silver image, the nature of the toning process, are elucidated according to the theory of the author.

Theoric und Geschichte des Photographischer Objectivs, by Dr. Moritz von Rohr, of Ziess's optical factory (Jena): Julius Springer, publisher. This is a valuable and comprehensive treatise upon photographic optics, by a practical man. The book discusses all the different types of lenses used in photography, so as to really form a history of photographic lenses from the beginning to the present time. But the theoretical principles of photographic optics are also considered. The index is elaborate, and forms a valuable guide or reference work, inasmuch it refers to papers, lectures, etc., contributed to the subject of lenses.

Geo. K. Hazlitt Co., of Chicago, have issued a new edition of "Modern Photography," by Henry Abbott. This speaks well for this popular treatise, which forms a complete guide to the amateur in every branch. 250 pages, 18 full-page illustrations and numerous cuts, diagrams, &c.; handsomely bound.

Wilson's Photographic Mosaics is like one of those old-time reputable inns, where one is ever sure of a good supply of whatever is needful. It is the pioneer American Year Book of Photography, and evidently holds a place of affection with those photographers who have grown up with it, and doubtless received many a valuable lesson from its pages during the 37 years of its vigorous life. These old familiars in the art still contribute their experience, and form a nucleus about

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which the discoveries of the younger members of the profession cluster.

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We have also received from Gauthier-Villars, Paris, Les Papiers Photographiques au Charbon, by R. Colson; also, from the same firm, La Photographie des Montagnes—J. Vallot; also, Les Agrandissenents—Stephen Wallon; Manuel, Pratique de Photographie au Charbon — Edouard Belin; and Formules, Recettes et Tables pour la Photographie: a translation in French of Dr. Eders' work.

We reserve a consideration of these until our next number.

SCIENTIFIC NOTES

Blue and Green Tones on Bromide Prints. — A—Brown ferric ammonium citrate 1 part, water 100 parts; B—potassium ferrycyanide 1 part, water 100 parts. Mix fifty parts of A and fifty parts of B with ten parts of glacial acetic acid, and immerse the fixed and washed prints therein until they have acquired the desired blue color, and then wash thoroughly. To obtain a green tone the prints are first toned with uranium, and then treated as above, or a combined bath may be used containing uranium nitrate solution (1 : 100) 25 parts, ferric ammonium citrate solution (1 : 100) 25 parts, glacial acetic acid 10 parts, potassium ferricyanide solution (1 : 100) 50 parts. This bath gives a malachite green color; if washed for a long time in ordinary water the color becomes bluer, owing to the gradual removal of the uranium compound.

According to Photo Chronik, the addition of Erythrosine to the Bi-Chromate of potassa process naturally accelerates

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the printing properties of the latter salt. This suggestion might lead to improvements in printing processes connected with bi-chromate salts. The Bi-Chromate of Copper is quite sensitive to light, and interesting pictures may be made with it in a variety of colors; the Erythrosine might be especially useful here.

The experiments of Mr. Gibson, noted in the last number of the JOURNAL, where the per-sulphate of ammonia is used in connection with the mercurial intensifiers, gives excellent results for toning of lantern slides. We suggest, however, the following of the application of the per-sulphate by the sodium sulphite solution and subsequent dip in Hypo. The image, either in the negative or positive, is much improved, both in color and intensity.

Sepia and Red Tones on Platinum Paper by Means of Development.—Hitherto brown tones on platinum paper have only been obtainable by a modification of the sensitive coating or of the developer. It has lately been discovered, however, that warm tones can also be obtained by the following treatment. The developer is prepared as follows: —

(A)	Water	480 ccm.
	Neutral potassium oxalate	120 grms.
(B)	Water	240 ccm.
	Chloride of Copper	8 grms.
(C)	Water	480 ccm.
	Bichloride of mercury	30 grms.
(D)	Water	120 ccm.
	Lead acetate	2 grms.

First put into a crucible 90 ccm. A, and 30 ccm. of solution B, and then, while vigorously stirring, add 30 ccm. of solution C, and finally 7½ ccm. of solution D, and heat until the precipitate is dissolved. The mixture must be filtered, and heated to 80° to 85° C. The printed paper, as in the hot-bath process, is passed quickly through the solution, and the development carefully watched. When this is complete, the print is fixed as usual, and is then placed in a weak solution of ammonia, and afterwards washed in clean water. Sepia tones

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dry darker, which should be remembered at the time of developing. A larger quantity of the bichloride of mercury gives warmer tones, and in the same way the tones can be altered by substituting for the potassium oxalate, sodium acetate, sodium phosphate, or rochelle salts, or these salts may be combined. Warm tones obtained by this process ought to be permanent.—*Chronik* (Practical Photog.)

A writer in *Photo Chronik* recommends as a novelty the addition of free Iodine to the developer for the production of very vigorous images in negative work. The formula is excellent and the results most satisfactary, but the idea is hardly new. Iodine has been used for this purpose for quite a number of years, especially for the vigorous toning of transparencies. The M. A. Seed Dry Plate Co. gives a similar formula for intense development which we are sure is at least three years old.

The *Chronik's* formula is as follows:

Water	100 c. c.
Sulphite soda	4 grammes.
Hydroquinone	1 gramme.
Sat. sol. of carbonate soda	10 c. c.
Sat. sol, of potassium bromide	3 drops.

to which is added 3 drops of the following: water, 15 c. c.; potassium iodide, 5 grammes; iodine, 1½ grammes.

Platinum Toning.—The following formula according to M. Courreges, (*Gazette du Photographe Amateur*), gives rich black tones for collodic chloride papers.

No. 1.	Water	500 parts.
	Borax	10 parts.
No. 2.	Water	500 parts.
	Chloride of Gold	1 part.
No. 3.	Water	1000 parts.
	Chloro platinite potash	1 part.
	Phosphoric acid	10 parts.

Before toning let a mixture composed of equal parts No. 1 and No 2 stand for three or four hours. See that the solution is neutral before using.

Wash the prints well before toning in the above bath, and

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stop toning as soon as the high lights turn greenish when the print is examined by transmitted light.

Rinse in two changes of water and carefully drain them to avoid dilution of the platinum bath No. 3, in which they are next to be immersed. Tone until the desired black color is reached. Fix and wash as usual.

Centenary of the "Father of Photography."—February 11th, 1900, was the hundredth anniversary of the birth of Henry Fox Talbot, an Englishman, for whom can be justly claimed the place which has long been held by J. M. Daguerre in the world's estimation.

Fox Talbot can claim this place because—

1. His public announcement of a successful photographic process anticipated Daguerre by some months; and
2. Present-day photography is a direct descendent and modification of Fox Talbot's method, and has no connection with that of Daguerre. Except as a curiosity, Daguerre's method and all modifications thereof have been dead for half a century.

Daguerre has had many public memorials (some in England and America, as well as in his own country), but Fox Talbot has never been so honored. Therefore, a committee has been formed at his old home, Lacock Abbey, near Chippenham, to raise a memorial fund for the restoration of the Chancel of Laycock Abbey Church. This seems to be the memorial which Mr. Fox Talbot would most have desired, for he was Lay Rector of the Church, and took great interest in its work. The Secretary of the fund is C. H. Talbot, Esq., of Lacock Abbey, Chippenham, the son of Henry Fox Talbot.

In connection with the fund, a small edition (limited to 100 prints from each of three plates) of Prints from three of Henry Fox Talbot's Photo-Engravings on Copper, has been printed by the Art Reproduction Co., Fetter Lane, London, and is being published by THE PHOTOGRAM, Ltd., 6 Farringdon Avenue, London, E. C. The Prints are about 10 in. by 8 in. on fine India paper, mounted on plate paper of about 19 in. by 11 in., and are sold at 5 shillings each, net. The whole of the price, without any deduction for expenses, will be handed over to the fund, and credited to the name of the subscriber.

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BUSINESS NOTES

In quoting a paragraph in our last issue from our much valued contemporary *Photography* (British) the elision of the final letter of the title transferred the credit to *Photograph* instead of *Photography* and as we endeavored to mark the distinction between the English paper and one of the same name in our own country, published in Pittsburg, Pa., we prefixed the specific title (London) so that the abstract seemed to have been derived from (*London Photograph*) an unknown sheet as yet.

Hereafter we shall when abstracting any paper or note from the English Journal affix the title *Photography*, and when indebted to our American contemporary specify the distinction.

The Photogravure and Color Co., of New York, have issued a charming little calender for 1900, illustrated with a beautiful photogravure of their own work, of a scene from "Ben Hur"—from a picture by H. J. Byron.

Photographers desiring criticism upon their work, covering the artistic qualities such as composition, light and shade, pose, nature, &c., &c., will receive much profitable and practical guide by consulting the Bureau of Art Criticism, Brooklyn, N. Y.

Those who are anxious to gain prizes at exhibitions will save time and find out whether they are progressing in the right direction by communicating with the Bureau of A. Guvera Marshall.

The Blue Print is growing much in favor with those who seek after artistic effect in photography, and it is surprising what varied and beautiful results may be obtained by slight modification of the ferro-prussiate process. The Obrig Camera Co., of New York, offer a special brand of blue paper which gives clean high lights and rich shadows and is upon paper of such good quality and so well preserved in the tin tubes that it may be subjected to the different manipulations without injuring the fibre.

The perfection and uniformity for which Solio is famous were only made possible by the purity of the raw stock upon which it is coated.

None but the best imported stock is used in any of our papers.

Manufacturers of photographic papers who use any but imported basic stock (Steinbach or Rives) do so either to save cost or as a makeshift.

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G. Gennert, of New York, has added another developing agent to his list which has been christened Adurol, which is said to do marvels in calling forth the latent image.

Gennert is also agent for the celebrated Voigtlaenders, Collinear lenses. Ross Goerz, Zeiss convertibles.

The Autotone Matt Paper possesses the property of giving a great variety of tones without any toning process being necessary, from sepia to black. It requires no other operation than printing and fixing and yet produces a beautiful picture which Messrs. Burk & James, the manufacturers, assure us are permanent.

The Penny Photographer will find it to his advantage to consult the catalogue of H. S. Hyatt, of St. Louis, who is prolific in his resources for supplying novelties to the trade at most reasonable prices.

The Suter Lens, No. 4 A seems to be a favorite lens with the studio operator, because it is a lens which will bear a pretty rigid exanimation, giving a flat field with considerable depth of focus and withall great rapidity. It has stood the test of years and is still a great favorite notwithstanding the numerous competitors now in the photographic field. Allen Bros., Detroit, agents.

The Central Amateur Supply Co., of Chicago, have prepared a combination background, especially designed for home portrajture, which can be so adjusted as to serve the purpose of four different grounds, dark, graded, clouded and Rembrandt. It is very convenient and when not in use may be easily and quickly rolled up.

Chas. H. Loeber, New York, send free to any address their interesting catalogue of everything useful to the photographer. It is quite different from the usual stereotyped price lists.

The catalogue of Riley Bros., New York, contains an extensive list of slides for the magic lantern in almost every topic and especial attention is given to the slides upon the war, Cuba, Porto Rico and the Philippines, which have been prepared with great care from excellent negatives by J. C. Hemmet.

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641,777. Photographic plate holder, Daniel Kelly, Jr., Muskegon, Mich.

642,059. Machine for mounting ornamental composition directly upon circular picture frames, Frank E. Adams, Chicago, Ill.

642,558. Picture frame, Ernest Oldenbusch, Weehawken, N. J., assignors to Kronheimer, Oldenbusch & Co., New York, N. Y.

642,163. Kinetographic camera, Howard W. Schroeder, assignor to Edison American Phonographic Co., Kansas City, Mo.

642,607. Photographer's combination baby-holder and lounge, Wm. A. Hennessey, Delavan, Wis., and W. W. McLain; said McLain assignor to E. F. McLain, Paola, Kansas.

642,997. Picture hanger, Olof Nelson, Dubois, Pa.

642,876. Photographic roll-holder, Orlando H. Peck, Minneapolis, Minn.

642,877. Camera, Orlando H. Peck, and C. L. Anderson, Minneapolis, Minn.: said Anderson assignor to said Peck.

642,941. Sensitized photographic paper, Redfield B. West, Guilford, Conn.

642,861. Photographic shutter, Andrew Wollensak, Rochester, N. Y.

643,322. Portable photographic dark room, Loren C. Cox, assignor of two-fifths to H. L. Whipple, Quincy, Ill.

TRADE MARKS:

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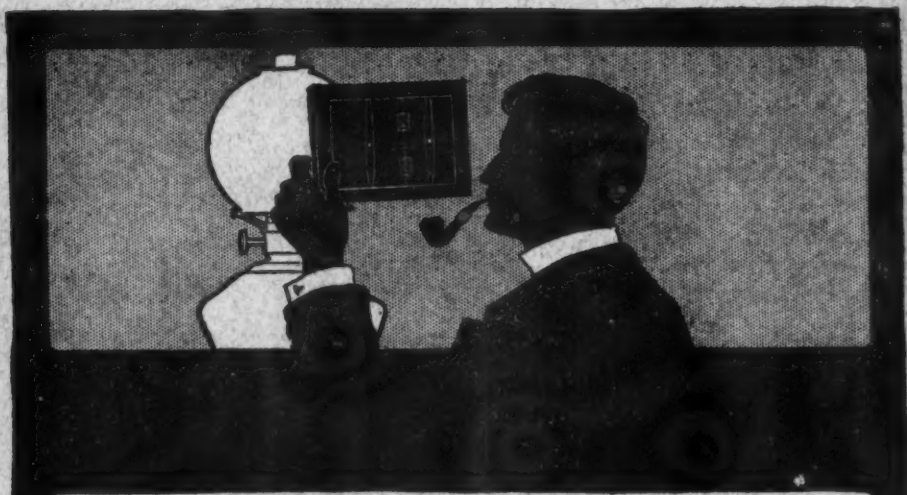

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